



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/830,003	04/23/2004	Ingrid Schemmel	P24945	7650

7055 7590 02/28/2007
GREENBLUM & BERNSTEIN, P.L.C.
1950 ROLAND CLARKE PLACE
RESTON, VA 20191

EXAMINER

ZHU, WEIPING

ART UNIT	PAPER NUMBER
----------	--------------

1742

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	02/28/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 02/28/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

gbpatent@gbpatent.com
pto@gbpatent.com

Office Action Summary	Application No. 10/830,003	Applicant(s) SCHEMMEL ET AL.	
	Examiner Weiping Zhu	Art Unit 1742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) 18-27 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 and 28-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>1/10/2006</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-17 and 28-39 drawn to a cold work steel article, classified in class 75, subclass 246.
 - II. Claims 18-27, drawn to a process for producing a cold work steel article, classified in class 419, subclass 28.

The inventions are independent or distinct, each from the other because:

Inventions II and I are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make another and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product as claimed can be made by another and material different process such as casting.

Because these inventions are independent or distinct for the reasons given above and there would be a serious burden on the examiner if restriction is not required because the inventions have acquired a separate status in the art in view of their different classification, restriction for examination purposes as indicated is proper.

During a telephone conversation with Mr. Stephen M. Roylance on February 20, 2007 a provisional election was made with traverse to prosecute the invention of I, claims 1-17 and 28-39. Affirmation of this election must be made by applicant in

Art Unit: 1742

replying to this Office action. Claims 18-27 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Objections

2. Claims 3 and 4 are objected to because of the following informalities: The chromium concentrations in the claims 3 and 4 have been expended in view of the chromium concentration limitation in the claim 1 on which the claims 3 and 4 are dependent. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-17 and 28-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2003-055747.

With respect to claims 1, 28, 3-7 and 29-32, JP ('747) discloses a sintered tool steel having a composition in wt% of: 0.8 to 2.5% C, 3 to 8% Cr, 1 to 10% Mo, 1 to 20% W, 1 to 7% V, ≤15% Co, ≤1% Si, ≤1% Mn and the balance Fe with inevitable impurities (abstract). The composition ranges of the elements present in the sintered tool steel of JP ('747) overlap the claimed ranges of the elements respectively. The overlapping establishes a prima facie case of obviousness. See MPEP 2144.05 I. It would have been obvious to one skilled in the art to have selected the claimed ranges in the disclosed ranges of JP ('747), because JP ('747) discloses the same utility in the whole

disclosed ranges. The 0 wt% of the low limits of the concentrations of P, S, Ni, Cu, Al, N and O in the claims 1 and 3-6 does not require the presences of these elements. The "cold work" in the claim 1 is a recitation of an intended use and gives no patentable weight to the claim. See MPEP 2111.02 II.

With respect to claims 15-17 and 36-39, JP ('747) discloses a process for producing the sintered tool steel comprising: gas-atomizing the melt to produce a metal powder having a particle diameter of less than 75 μm ; filling the powders in a steel container; sealing the container; vacuum-degassing the container; extruding the container containing the powders, shape-sintering or hot isostatic pressing the container containing the powders followed by repeated wire drawing and annealing (paragraph [0017 and [0018], the translation). JP ('747) does not specify the gas used in the gas atomization. However, one of ordinary skill in the art would expect an inert gas including nitrogen as claimed in the instant claims 15, 38 and 39 would have been used in the gas atomization of JP ('747) in order to prevent possible contaminations of the powders.

The particle diameter range of JP ('747) is within the claimed range in the claim 15 and 37. The process steps of JP ('747) are substantially identical to the claimed process step.

With respect to claims 8-10, 33 and 34, JP ('747) teaches the same composition and the same process as stated above, therefore it would be expected that the composition of JP ('747) contains the same impurities. See MPEP 2112.01 [R-3].

With respect to claims 2, 11-14 and 35, JP ('747) does not specify the claimed properties. However, it has been well held where the claimed and prior art products are

Art Unit: 1742

identical or substantially identical in structure or composition, or are produced by identical or substantially identical process, a prima facie case of either anticipation or obviousness has been established. In re Best, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977), MPEP 2112.01 [R-3] I. In the instant case, the sintered tool steel of JP ('747) is produced by identical or substantially identical processes, therefore a prima facie case of obviousness exists. The same impact strength and the same yielding point as claimed in the instant claims 2 and 11-14 would be expected in the sintered tool steel of JP ('747) as in the claimed material.

Conclusion

4. This office action is made non-final. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Weiping Zhu whose telephone number is 571-272-6725. The examiner can normally be reached on 8:30-16:30 Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1742

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

WZ

2/15/2007

NOTED
SUPERVISOR OF PATENT EXAMINERS
FEBRUARY 15, 2007